

XP-002100428

1/1 - (C) WPI / DERWENT
 AN - 77-87204Y ç25!
 PR - JP760044646 760419
 TI - Deodorising waste gas by contacting with foamed soln. -
 contg. e.g. ferric salt and aq. alkaline surfactant
 soln.
 IW - DEODORISE WASTE GAS CONTACT FOAM SOLUTION CONTAIN
 FERRIC SALT AQUEOUS ALKALINE SURFACTANT SOLUTION
 PA - (WAKI-I) WAKI H
 PN - JP52127487 A 771026 DW7749 000pp
 ORD - 1977-10-26
 IC - B01D53/34
 FS - CPI
 DC - E36 J01
 AB - J52127487 Waste gas is deodorised by contacting with a
 foamed soln. contg. u=1 of (a) ferric salt (I) and
 alkaline aq. soln. of surface active agent (II), (b)
 (I) and neutral aq. soln. of surface active agent
 (III), (c) (I), (II) and water soluble oxidising agent
 (IV), (d) (I), (III) and (IV), (e) (I); chelating agent
 (V) and (II), (f) (I), (V) and (III), (g) (I), (V),
 (II) and (IV), (H) (I), (V), (III) and (IV). The
 ferric salt is $\text{Fe}_2(\text{SO}_4)_3$, FeCl_3 , $\text{Fe}(\text{NO}_3)_3$, or
 $\text{Fe}(\text{ClO}_4)_3$.
 - Pref. chelating agent is EDTA sodium citrate,
 acetylacetone etc. Pref. concn. of ferric salt and
 chelating agent are 0.1-5 wt.%. Pref. water soluble
 oxidising agent is H_2O_2 , persulphuric acid, peracetic
 acid, HClO etc. and preferred concn. thereof is
 0.05-0.2 wt.%. Preferred alkali is NaOH , KOH , Na_2O_2 ,
 NH_3 , etc.
 - Foul smelling components in waste gas, partic. H_2S , are
 effectively removed without reducing the efficiency
 even when components which consumes alkaline materials
 such as CO_2 are present in the waste gas. Sol of
 $\text{Fe}(\text{OH})_3$ which is formed in the presence of the surface
 active agent is maintained in the satisfactorily
 dispersed state assuring large surface area of the sol.
 When a chelating agent is used in combination, Fe^{+++}
 ions are masked by the chelating agent. $\text{Fe}(\text{OH})_3$ sol.
 is not formed, even under an alkaline condition.
 Therefore, powders of sulphur liberated from H_2S are
 recovered in the pure form by filtration, and the
 consumption of Fe catalyst is small.